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10/502,081	12/14/2004	Peter Dam Nielsen	893-011876-US (PAR)	2106				
2512 PERMAN & GREEN 425 POST ROAD FAIRFIELD, CT 06824	7590 10/09/2007		<table border="1"><tr><td colspan="2">EXAMINER</td></tr><tr><td colspan="2">LAM, DUNG LE</td></tr></table>		EXAMINER		LAM, DUNG LE	
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The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Claim Objections

Claim 21 objected to because of the following informalities:

Claim 21 recites "the executable program" which was never mentioned in claim

1. The examiner believes claim 21 should depend on claim 20 where the "executable program" is mentioned.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims **1-10, 13, 15- 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Andrews** (US Patent No. 5,911,121) in view of **White et al.** (US Publication No. 2005/0026643) in further view of **Gum** (US Patent No. 6,477,390).

3. Regarding **claim 1**, **Andrews** teaches a method of operating an electric circuitry (C3 L23-40, C5 L14-30) interfacing with an exchangeable cover part (44, Fig. 2) for supporting a user interface of a wireless terminal (10, Fig. 2), said wireless communication terminal and said user exchangeable cover part are electrically interconnected by means of an electrical connector (60, Fig. 3) having a plurality of pins

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(C1, C2, C3, Fig. 4), said method comprises: identifying a type of said user exchangeable cover part and (Col. 3, line 34-39); user exchangeable cover part and (Col. 3, line 34-39); operating at least one of said connector pins in an identification state for sensing a value included in an identification cover type indicator (Col. 3, line 34-39); and afterwards operating at least one of the connector pins in an operation state for operating the electric circuitry of said user exchangeable cover part (Col. 3, line 41 - Col. 4, line 22, Table 1).

However **Andrews** does not explicitly teach that (a) the electric circuitry is in the cover and that (b) the at least one of said connector pins operating in an identification state is a bi-directional and bi-mode signal pin bi-directional and bi-mode signal pin.

(a) In an analogous art, White teaches an electronic circuit that is embedded in the cover of the phone (17, Fig. 1, [0039, 0047]). Therefore, it would have been obvious for one skill in the art at the time of the invention to modify Andrews's teaching of the removable cover and the pin connection to also have the circuitry within the cover to make it easier and less expensive for future upgrade of functionality buy simply changing the cover that has the embedded additional function and not having to buy a brand new phone.

White further teaches that it is possible to connect the cover and the body by ohmic coupling ([0099]), though as his design choice, White prefers inductive coupling over ohmic coupling arrangement. The examiner notes the pin is nothing more than an interface that connects the cover and the main body of the phone. Thus, White clearly

teaches that the interface can be a contact (ohmic/pins) or contactless (inductive coupling); it's a matter of design choice.

(b) White further teaches that the interface allows signal to travel **from** the cover to the body of mobile phone and vice versa ([0013-0014]) or power is coming **into** the cover from the reader unit of the mobile's body ([0047]) and the identity of the cover is going **out** of the cover to the mobile ([0062]) which broadly reads on the concept of having an interface that is bidirectional. Therefore, it would have been obvious for one skill in the art at the time of the invention to further modify Andrews teaching to not only having data going in but also out to transfer data to fully utilize the interface. And because the data storage can either operate synchronous mode or asynchronous mode it broadly reads on as being bi-mode ([0067]). Therefore, it would have been obvious for one skill in the art at the time of the invention to further modify Andrews teaching to have bi-mode to increase the flexibility.

However, Andrews and White do not explicitly teach a user-defined mapping of a set of tones or sound effects to the one of more keys connected to said electric circuitry of said user exchangeable cover. In an analogous art, **Gum** teaches a user-defined mapping of a set of audio tones to one or more keys (Col. 2 L9-14, Col. 4-6 especially C6 In 30-65, Figs. 1, 3-4). Therefore, it would have been obvious for one skill in the art at the time of the invention to combine Andrew's exchangeable cover and Gum's teaching of a user-defined mapping of enunciating certain audio tones to the keys to provide a user-friendly feature in reassuring users in dark environment or sight-impaired users that the correct buttons were pressed (Col. 1 L35-49).

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White further teaches that said keys are connected to said electric circuitry (controller, Fig. 13, para. 08, 10, 47, 60, 62, 66) and wherein said keys are configured to create sound creating purposes comprising music composing applications, sound creating applications (create tunes para. 88), system sound creation (sound generation system, para. 134), sending sounds with multimedia messaging service (par. 87) or any combination thereof. **White** further teaches that the supplier of the fascia may attract buyers by providing additional data such as ringing tones to advertise itself or other companies (para. 60). Therefore, it would have been obvious for one of ordinary skill in the art at the time of invention to combine Andrews's user exchangeable cover and Gum's user-defined mapping of the keys to the tone and **White**'s keys for sound creating applications or tune creation features to make the fascia more interesting and thus more marketable.

4. Regarding **claim 2**, Andrews, White and Gum teach all the limitations as in claim

1. Andrew further teaches said value is a resistor value included in the cover type indicator (Col. 3, line 54 - Col. 4, line 10).

5. Regarding **claim 3**, Andrews, White and Gum teach all the limitations as in claim

2. White further teaches an operation state is a frequency mode for directing an electrical representation of a ringing signal to the electric circuitry for providing an illumination effect following the ringing signal (para. 102 - 104). Therefore, it would have been obvious for one of ordinary skill in the art at the time of invention to add the

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illumination effects following a ringing tone to better inform a user of an incoming call since it is easier to see than hear a notification in a noisy environment.

6. Regarding **claim 4**, it is an apparatus claim corresponding to the method claim 1.

Therefore it is rejected for the same reasons as claim 1.

7. Regarding **claim 5**, Andrews, White and Gum teach all the limitations as in claim

4. Andrews further teaches said connector pins are arranged in line in an equal distance (Fig. 9 and 7).

8. Regarding **claim 6**, Andrews, White and Gum teach all the limitations as in claim

5. Although they fail to teach that the connector pins are arranged at the rear side of the cover part, changing the location from the front to the rear of the cover does not change the functionality of the cover. Therefore, it would have been obvious for one of ordinary skill in the art to place the pins at the rear as a designer's choice to best fit the rest components of the cover.

9. Regarding **claim 7**, Andrews, White and Gum teach all the limitations as in claim

6. Andrews teaches the number of connector pins is four. He does not teach the number to be three nor five. However, he teaches that there can be 2^n combinations of models that can be supported depending on n number of pins. Therefore, it would have

been obvious for one of ordinary skill in the art to choose 3 or 5 pins depending on the number of models the supplier would like to support (Col. 4, lines 17-20).

10. Regarding **claim 9**, Andrews, White and Gum teach all the limitations as in claim 5. Andrew teaches said value is a resistor value included in the cover type indicator (Col. 3, line 54 - Col. 4, line 10).

11. Regarding **claim 10**, Andrews, White and Gum teach all the limitations as in claim 6. White teaches the operation state is a frequency mode for directing an electrical representation of a ringing signal to the electric circuitry for providing an illumination effect synchronized with the ringing signal (para. 102 - 104).

12. Regarding **claim 13**, it is a cover that corresponds to the exchangeable cover as claimed in claim 4. Therefore it is rejected for the same reason as claim 4.

13. Regarding **claim 16**, Andrews, White and Gum teach all the method according to claim 1 further comprising, running a program stored in a memory located in the user exchangeable cover part located in a processor of the user exchangeable cover part (para. 66-72).

14. Regarding **claim 17**, it is an apparatus that corresponds to the exchangeable cover method claim 16. Therefore, it is rejected for the same reason as claim 16.

15. Regarding **claim 18**, it is a method that corresponds to the exchangeable cover method claim in 16. Therefore it is rejected for the same reason as claim 16.

16. Regarding **claim 19**, Andrews, White and Gum teach all the limitations of a wireless communication terminal according to claim 4, wherein the at least one of the interface that connects the cover and the phone taught by White operates in an identification state is configured to operate in a frequency mode ([0097]), a pulse width modulation mode ([0102]) and a cover type indication-mode ([0008-0010]).

17. Claims **11 and 14** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Andrews** (US Patent No. 5911121) in view of **White et al.** (US Publication No. 2005/0026643) further in view of **Gum** (US Patent No. 6,477,390) further in view of **Zhao** (Patent No. 2004/0204135)

18. Regarding **claims 11 and 14**, Andrews, White and Gum teach all the limitations as in claim 4 and 13 respectively. However, they fail to teach said set of tones and/or sound effects comprise music instrument digital interface tones. In an analogous art, **Zhao** teaches ring tones in the form of MIDI (6, 18, 25, 13 and 18). Therefore, it would have obvious for one of ordinary skill in art at the time of invention to add the MIDI tone as another plus feature into the fascia to make the product more marketable.

19. Claims **20 and 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Andrews** (US Patent No. 5911121) in view of **White et al.** (US Publication No.

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2005/0026643) further in view of **Gum** (US Patent No. 6,477,390) further in view of **Lee** (Patent No. 2004/0202858)

20. Regarding claim 20, Andrews, White and Gum teach the method of claim 1, White further teaches the loading at least one executable program in the cover part to the wireless terminal, the executable program being configured to operate an application stored in a processor in the wireless terminal ([0009-0010, 0043, 0049, 0058-0064]). However, White fail to teach that the storage device is in a form of a multi-media memory card. In an analogous art, **Lee** teaches storage data is stored in an external expansion card such as Multimedia Card to satisfy the ever increased functional requirements ([0003, 0011]). Therefore, it would have been obvious for one skill in the art at the time of the invention to modify Andrews, White, and Gum's teaching of the removable casing to also include an extension card containing the executable program so that additional data/software can be added or updated more easily.

21. With further regard to claim 21, Andrews, White, Gum and Lee teach the method of claim 1, wherein White also teaches the executable program is a music file or gaming file ([0009, 0079, 0082, 0084]).

Response to Arguments

Applicant's arguments filed 1-10, 13 and 14-19 filed on 1/18/07 have been fully considered but they are not persuasive.

Applicant argues that the cited references do not teach that the pin is bidirectional and bi-mode. The examiner respectfully disagrees. Since there is no exact definition of what is meant by "bi-directional" and "bimode", for examination purpose, the examiner will interpret "bi-directional" as a signal flowing in and out of the cover and the "bi-mode" is interpreted as some operations that can be done two ways. As address above the pin is nothing more but an interface. In White's teaching, the interface clearly can **receive** power signal from the cover ([0039, 0047, 0056, 0066]) and **send** data such as ring tone, games, software to the body of the phone ([0009, 0062, 0067]) which broadly reads on the term "bi-directional". And the interface can operate asynchronous or synchronous mode and the fact that it can have at least two different functionalities (gaming, ring tones, messaging) are just two of the many possible interpretations to the broad limitation of "bi-mode". The examiner further submits that the use of "bi-directional" and "bi-mode" pin to send and receive data is well known in the art and would not make the invention novel.

Applicant argues that the combination of Andrews, White and Gum fail to teach a user defined mapping of a set of tones or sound effects to the one or more keys. The examiner respectfully disagrees. As addressed in previous action dated 9/21/06, Gum clearly teaches that the keys can be programmed and assigned with distinctive signal and unique audible signals which reads on the limitation of a "user defined mapping of a

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set of tones or sounds to one or more keys". For example when a key "8" is pressed, the user may hear eight beeps or when a user presses a number "5" key a user may hear a voice that says "five" which are made possible as a result of programming and key mapping/assigning (Col. 6 Ln 30 – 54). Therefore, applicant's argument regarding the missing limitation regarding the "user defined mapping of sound to one or more keys" is moot.

Applicant further argues that the circuit is not part of the fascia. The examiner disagrees. White teaches that the passive data storage 17 (17 part of the fascia Fig 1). The passive storage 17 is a circuit itself because it contains many electrical components such as LC2, sensor, power driver, data storage, controller (see Fig. 4, [0047]). As White pointed out in paragraph 38, the passive data storage 17 is part of the fascia. Therefore, applicant's argument that White does not disclose a processor is on the fascia is moot.

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Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Lam whose telephone number is (571) 272-6497. The examiner can normally be reached on M - F 9 - 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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